

Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1.-2. (Cancelled)

Claim 3. (Currently Amended) ~~The information system according to Claim 1,~~ An information system for providing information in correlation with light incident on an eye, said system comprising:

a holographic element disposed in front of the eye; and

an optical scanning device which detects light incident on the eye via the holographic element;

wherein the optical scanning device detects light which is diffracted by the holographic element before it impinges on the eye, and does not enter the eye.

Claims 4.-5. (Cancelled)

Claim 6. (Currently Amended) The information system according to
Claim [[1,]] 3, wherein:

the holographic element furthermore diffracts light originating from
a field of vision of the eye at more than a first predetermined number and fewer
than a second predetermined number of discrete wavelengths in the visible
range, ~~either before the light impinges on the eye or after its backscattering as a~~
~~result of the eye,~~ for the detection by the optical scanning device; [[and]]

said first predetermined number is selected from the group
consisting of one and three; and

said second predetermined number is selected from the group
consisting of 20, 10 and 5.

Claim 7. (Currently Amended) The information system according to
Claim [[1,]] 3, wherein the holographic element diffracts light originating from
the field of vision of the eye at a discrete wavelength in the infrared range, ~~before~~
~~the light impinges on the eye or after its backscattering as a result of the eye,~~ for
the detection by the optical scanning device.

Claim 8. (Currently Amended) The information system according to Claim [[1,]] 3, wherein the holographic element diffracts light reflected back by the eye only at a discrete wavelength in the infrared range for the detection by the optical scanning device.

Claim 9. (Cancelled)

Claim 10. (Currently Amended) The information system according to Claim [[1,]] 3, wherein:

the holographic element diffracts light at several discrete wavelengths such that the diffracted light is guided to a common point; [[,]] and

the angle of incidence of the light on [[this]] said common point permits an unambiguous, wavelength-independent conclusion as regards an angle of incidence of the light upon the holographic element.

Claims 11.-16. (Cancelled)

Claim 17. (Currently Amended) ~~The information system according to Claim 13, wherein~~ An information system for providing information in correlation with information obtained from an eye, said system comprising:

a holographic element disposed in front of the eye; and

an optical projection device which projects light into the eye via the
holographic element; wherein,

the holographic element diffracts wavelengths of the projected light;
and

the holographic element comprises at least one ~~or more~~ optical
~~markings~~ marking, whose light reflection characteristics can be used by the
information system by means of a photodetector for calibrating a projection angle
of at least one of the optical projection device and a light guiding device.

Claims 18.-44. (Cancelled)

Claim 45. (Currently Amended) The information system according
to Claim [[13,]] 17, wherein ~~the holographic element comprises~~ at least one of
said at least one optical marking is created by reproducing mirroring elements in
the holographic element during creation of the holographic element, such that
said mirroring elements reflect light of at least one wavelength that has fallen

onto the holographic element from the optical projection device, back along the path of incidence.

Claim 46. (New) An information system for providing information with respect to an eye, said system comprising:

spectacles including a holographic element disposed in front of the eye;

a camera configured and arranged to detect light from an environment ambient to said eye; and

an optical projection device which projects light into the eye via the holographic element.

Claim 47. (New) The information system of Claim 46, wherein said camera is positioned such that an optical axis of said camera coincides approximately with an optical axis of said eye.

Claim 48. (New) The information system of Claim 46, wherein said optical projection device comprises an LED that projects light into the eye via the holographic element.

Claim 49. (New) The information system of Claim 48, wherein
said holographic element diffracts light at a red, a blue and a green wavelength.

Claim 50. (New) The information system of Claim 46, wherein:

said information system further comprises a GPS receiver; and

said information system uses said GPS receiver to determine at
least one of a position and orientation of said eye relative to the environment.

Claim 51. (New) An information system for providing information
with respect to an eye, said system comprising:

spectacles including a holographic element disposed in front of the
eye; and

an optical projection device including an LED that projects light
into the eye via the holographic element;

wherein the holographic element diffracts wavelengths of the
projected light.

Claim 52. (New) The information system of Claim 50, wherein:

the information system further comprises a GPS receiver; and

said information system uses said GPS receiver to determine at least one of a position and orientation of said eye relative to the environment.

Claim 53. (New) The information system of Claim 48, wherein said holographic element diffracts light at a red, a blue and a green wavelength.

Claim 54. (New) An information system for providing information to an eye, said system comprising:

spectacles including a holographic element disposed in front of the eye; and

an optical projection device that projects light into the eye via the holographic element; wherein

the holographic element has light-diffracting characteristics at at least a first discrete wavelength, which corresponds to a reflection on the concave

side of a surface constructed according to the curvature of a rotationally symmetrical ellipsoid;

the holographic element has light-diffracting characteristics at at least a second discrete wavelength, which corresponds to a diffraction on the concave side of a surface constructed according to the curvature of a rotationally symmetrical ellipsoid; and

said diffraction corresponds to a reflection on a respective conical surface which is rotationally symmetrical about the axis of rotation of the ellipsoid and is perpendicular with respect to the ellipsoid at the site of the diffraction.